Regulated Price Plan

Price Report

for

April 1, 2005 to March 31, 2006

Ontario Energy Board

March 11, 2005

EXECUTIVE SUMMARY

This report contains the electricity commodity prices for consumers that will apply as of April 1, 2005 to consumers designated by regulation as eligible for the Regulated Price Plan (the "RPP"). The prices were developed using the methodology described in the Regulated Price Plan Manual (the "Manual"). This Manual was developed within the context of a larger regulatory proceeding on the RPP involving significant stakeholder input and consultation.

The principles that have guided the Ontario Energy Board (the "Board") in developing the RPP were established by the Ontario Government. In accordance with the applicable regulation, the prices paid for electricity by RPP consumers must be based on forecasts of the cost of supplying them and must be set to recover those costs. Further, the legislation requires that the initial prices determined by the Board must remain in effect for at least a full 12 months. In simple terms, the methodology used to develop the RPP price had two essential steps:

1. Forecasting the total RPP supply cost for the 12 months from April 1, 2005, and

2. Developing prices to recover the forecast RPP supply cost from consumers.

The calculation of the total RPP electricity supply cost involves several separate forecasts. These include forecasts of:

- the hourly market price of electricity
- the electricity consumption pattern of RPP consumers
- the electricity supplied by those assets of Ontario Power Generation (OPG) whose price is regulated by the Government or that are subject to a revenue cap
- the costs related to the contracts signed by non-utility generators (NUGs) with the former Ontario Hydro, and
- the supply and other contracts entered into with, and the variance account carried by, the Ontario Power Authority (OPA).

The overall market price for electricity used by RPP consumers reflects both the hourly market price of electricity and the electricity consumption pattern of RPP consumers. Residential consumers, who represent most of the RPP load use relatively more of their electricity during times when total Ontario demand and prices are higher than their averages and relatively less when total Ontario demand and prices are lower than their averages. That will make the overall market price for RPP consumers higher than the average hourly Ontario energy price (HOEP).

The hourly market price forecast for this computation was prepared for the Board by Navigant Consulting. The forecast of the simple average HOEP for 12 months from April 1, 2005 is $55.38 per MWh (5.538 cents per kWh). After accounting for RPP consumers' consumption pattern, the overall market price for electricity used by RPP consumers is forecast to be $59.75 per MWh.

This represents the load-weighted average electricity price that RPP consumers would pay if all their electricity supply were purchased out of the Ontario wholesale electricity spot market.

Other components of the RPP supply cost temper this price. The collective impact of these other components is summarized in a factor called the Global Adjustment. It reflects the impact of the NUG contract costs, which are above market prices, and the regulated prices for OPG's prescribed baseload nuclear and hydro generating facilities, which are below market prices. The forecast net impact of the Global Adjustment is to reduce the average RPP supply cost by $2.22 per MWh.

Note that actual prices and actual demand cannot be predicted with absolute certainty; both price and demand are subject to random effects. An additional small adjustment is made to the average RPP supply cost to account for the fact that these random effects are more likely to raise than to lower costs. This adjustment was determined to be $0.20 per MWh (or about 0.02 cents per kWh). Without this adjustment, the RPP would be expected to end the year with a small consumer debit variance.

One additional step is required for this initial RPP year based on recent Government regulations. On February 23, the Ontario Government announced a partial revenue cap for the non-prescribed assets (i.e., non-baseload hydroelectric and coal facilities) owned by OPG. The result of this revenue cap will be a rebate to consumers. The rebate will only apply to this RPP period and one month of the subsequent RPP period. With this rebate included in the calculation, as required by Government regulation, there is a further $4.55 per MWh reduction in the RPP supply cost, making the overall *average RPP supply cost* $53.18 per MWh.

Table 1 summarizes the steps discussed above to arrive at the average RPP supply cost of $53.18 per MWh. This average supply cost corresponds to an *average RPP price,* which is referred to as *RPA* in this report, of about **5.3 cents per kWh**.

Table 1: Average RPP Supply Cost Summary

RPP Supply Cost Summary		
for the period from April 1, 2005 through March 31, 2006		
Forecast Simple Average Hourly Ontario Electricity Price (HOEP) ($/MWh)	$55.38	
Load-Weighted Price for RPP Consumers ($/MWh)		$59.75
Reduction due to Global Adjustment ($/MWh)		-$2.22
Adjustment to Address Bias Towards Unfavourable Variance ($/MWh)		$0.20
Value of Rebate for Revenue Cap on OPG Non-Prescribed Generation ($/MWh)		-$4.55
Average Supply Cost for RPP Consumers ($/MWh)		***$53.18***

Inevitably, there will be a difference between the actual and forecast cost of supplying electricity to all RPP consumers. This difference is referred to as the *unexpected* variance and will be included in the RPP price the following RPP year.

RPP consumers are not charged the average RPP price. Rather, they pay prices under a price structure designed to make their average price equal to the average RPP price. There are two

RPP price structures, one for consumers with conventional meters and one for consumers with eligible time-of-use meters who are paying time-of-use (TOU) prices.

Conventional Meter Regulated Price Plan

The conventional meter RPP has prices in two tiers, one price (referred to as $RPCM_{T1}$) for monthly consumption up to and including the tier threshold and another price (referred to as $RPCM_{T2}$) for consumption over the threshold. The threshold will remain unchanged at 750 kWh per month for all RPP consumers until November 1, 2005. At that time, the threshold for residential consumers will change twice a year on a seasonal basis: to 1000 kWh per month during the winter season (November 1 to April 30) and to 600 kWh per month during the summer season (May 1 to October 31).

The resulting **tier prices** for consumers with conventional meters are:

$RPCM_{T1}$ = **5.0 cents** per kWh, and.

$RPCM_{T2}$ = **5.8 cents** per kWh.

The tier thresholds for the initial RPP period place just over 50 per cent of forecast RPP consumption at the lower tier price, causing the spread to be asymmetrical about the average. The average price for conventional meter RPP consumption is forecast to be equal to RPA, approximately 5.3 cents per kWh.

Smart Meter Regulated Price Plan

Consumers with eligible *time-of-use* (or *"smart"*) meters that can determine when electricity is consumed during the day will pay under a TOU price structure.[1] The prices for this plan are based on three time-of-use periods. These periods are referred to as *off-peak* (with a price of $RPEM_{OFF}$), *mid-peak* ($RPEM_{MID}$) and *on-peak* ($RPEM_{ON}$) and are identified in the Manual. The lowest (off-peak) price is below RPA, while the other two are above it. These three prices are related to each other in approximately a 1:2:3 ratio.

The resulting **time-of-use prices** for consumers with eligible time-of-use meters are:

$RPEM_{OFF}$ = **2.9 cents** per kWh,

$RPEM_{MID}$ = **6.4 cents** per kWh, and

$RPEM_{ON}$ = **9.3 cents** per kWh.

The *off-peak* time-of-use price applies for more than 50 per cent of the hours in a week. The *on-peak* period time-of-use price applies for under 20 per cent of the hours in a summer week and,

[1] Local distribution companies have the option of implementing time-of-use RPP pricing in the first year of the RPP. As of April 1, 2006, time-of-use RPP pricing will be mandatory for RPP consumers with "smart" meters.

because the *on-peak* period changes in the winter, applies for just over 20 per cent of the hours in a winter week. The average price for smart meter RPP consumption, weighted by forecast consumption in each of the time-of-use periods, is forecast to be equal to RPA, approximately 5.3 cents per kWh.

Changes from the Interim Pricing Regime

The average RPP supply price for the year beginning April 1, 2005 is expected to be 5.3 cents per kWh. This is higher than the average price that low-volume and designated consumers have paid since April 1, 2004 under the 4.7 cent/5.5 cent pricing plan. Overall, those consumers have paid on average about 5.1 cents per kWh this past year before considering the impact of $300 million in rebates announced by the Minister of Energy on February 23, 2005.

This increase is the net result of several factors. Putting upward pressure on price are the inclusion of the full contract costs for supply from non-utility generators, higher expected prices for coal and natural gas, the reversion to normal weather as compared to the past year, and the retirement of Lakeview generation. The net effect of the recently announced new pricing arrangements for much of OPG's production also increases the average RPP price.

The Board's Role in Determining Prices under the RPP

The Board has a different role in determining the commodity electricity prices that RPP consumers will pay compared to its role in regulating the distribution rates that utilities collect for delivering electricity to homes and businesses.

Distribution utilities file applications with the Board for approval of cost-based charges levied on consumers for providing distribution services. The Board scrutinizes these applications and sets reasonable rates to recover justifiable and prudent costs from consumers.

In contrast, for the RPP, the Board forecasts the total cost of supplying the electricity used by RPP consumers and converts that cost into stable and predictable prices for RPP consumers. The forecast cost of supply is based on a set of prices that are not determined by the Board. Some of these prices will be determined in the open market and will fluctuate hourly based on supply and demand. Some of these prices are determined by Government regulation or are based on contracts entered into by the former Ontario Hydro or by the Ontario Power Authority. Simply stated, the Board does not regulate the electricity commodity prices that are the inputs to the electricity prices in this RPP Price Report. In other words, while the Board determines the electricity commodity prices that RPP consumers will pay, the Board does not determine the various commodity prices that are blended together to set the RPP prices.

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1. INTRODUCTION

Under amendments to the *Ontario Energy Board Act, 1998* (the "Act") contained in the *Electricity Restructuring Act, 2004*, the Ontario Energy Board (the "Board") has been mandated to develop a regulated price plan (the "RPP") for electricity prices to be charged to consumers that have been designated by regulation. The first prices to be implemented under the RPP will be effective on April 1, 2005, as set out in the applicable regulation.[2] These electricity prices are intended to be in effect for at least one year from that date. This Report contains the prices to be implemented on April 1, 2005 and summarizes how they were calculated. Details of the methodology for determining prices are contained in the Board's Regulated Price Plan Manual (the "Manual"). That Manual was prepared within the context of a larger regulatory proceeding (designated as RP-2004-0205) in which interested parties have assisted the Board in developing the elements of the RPP.

This Report consists of four chapters as follows:

- Chapter 1. Introduction
- Chapter 2. Calculating the RPP Supply Cost
- Chapter 3. Calculating RPP Prices
- Chapter 4. The Transition to RPP Prices

Associated Documents

Three documents are closely associated with this Report:

- The Manual, which describes in detail the methodology followed in producing the results contained in this Report.
- The Ontario Wholesale Electricity Market Price Forecast (Ontario Market Price Forecast), prepared for the Board by Navigant Consulting, which contains the Ontario electricity market price forecast which was used for this Report. That document details all of the assumptions used to prepare the hourly price forecast. Those assumptions are not repeated in this Report.

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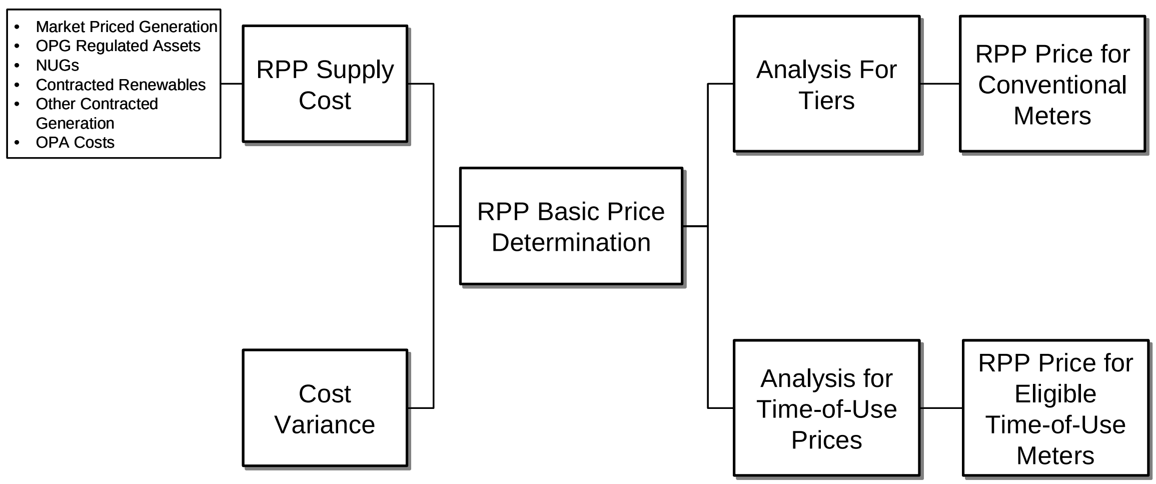
[2] On March 1, 2005, the Ministry of Energy posted on its website a draft regulation (also referred to in this Report as the "RPP Regulation") regarding the determination of rates by the Board under section 79.16 of the Act (the section of the Act under which the Board's authority to determine RPP prices arises). The draft regulation provides that the rates for electricity payable by eligible consumers will be the rates determined by the Board as of April 1, 2005. The determination of rates by the Board is subject to adoption of the draft regulation.

- The regulation under section 79.16 of the Act (the "RPP Regulation"), which sets out who is eligible for the RPP, the effective date of the RPP and the manner in which the Board will determine rates for purposes of the RPP.

Process for RPP Price Determinations

Figure 1 below illustrates the process for setting RPP prices. The RPP supply cost and the accumulated cost variance (carried by the Ontario Power Authority or OPA) both contribute to the base RPP price, which is set to better recover the full costs of supply. For this calculation of the initial RPP price, there is not yet any accumulated cost variance. The price is therefore based only on forecasts of prices and of consumption patterns. The diagram below illustrates the processes to be followed for both consumers with conventional meters and those with eligible time-of-use meters (or "smart" meters).

Figure 1: Process for RPP Price



This Report is organized according to this basic process. Note that in determining initial RPP prices, the process also included analysis of the impact of the 13-month revenue cap imposed by the Government on Ontario Power Generation's (OPG's) non-prescribed generating facilities. The Board is required by the RPP Regulation to take this into account.

2. CALCULATING THE RPP SUPPLY COST

The RPP supply cost calculation formula is set out in Equation 1 below. To calculate the RPP supply cost requires forecast data for each of the terms in Equation 1. Most of the terms depend on more than one underlying data source or assumption. This chapter details the data sources or assumptions for each of the terms and describes how the data were used to calculate the RPP supply cost. More detail on this methodology is in the Manual.

It is important to remember that all of the terms in Equation 1 are forecasts. In some cases, the calculation uses actual historical values, but in these cases the historical values constitute the best available forecast.

Defining the RPP Supply Cost

Equation 1 below defines the RPP supply cost. The elements of Equation 1 are set out by the legislation and regulations. This equation is further explained in the Manual.

Equation 1

$C_{RPP} = M + \alpha\,[(A - B) + (C - D) + (E - F) + G] + H$, where:

- C_{RPP} is the RPP supply cost;
- M is the amount that the RPP supply would have cost under the Market Rules;
- α is the RPP proportion of the total demand in Ontario;[3]
- A is the amount paid to prescribed generators;[4]
- B is the amount those generators would have received under the Market Rules;
- C is the amount paid to non-utility generators (NUGs) under existing contracts;
- D is the amount those NUGs would have received under the Market Rules for both electricity and ancillary services;
- E is the amount paid to generators contracted to the OPA that are paid according to their output (i.e., renewable generators);

[3] The expression in square brackets is the Global Adjustment; it is applied to the RPP according the load ratio share represented by RPP consumers, denoted here as α.

[4] These are generators designated by the *Payments under Section 78.1 of the Act Regulation*, O. Reg. 53/05, and whose output is subject (in whole or in part) to a regulated rate which is currently set by the Government under that Regulation.

- F the amount those generators would have received under the Market Rules;

- G is the amount paid by the OPA for its other procurement contracts, which will include payments to generators or for demand response or demand management; and

- H is the OPA's costs related to the RPP variance account.

The forecast per unit RPP supply cost will be C_{RPP} divided by the total forecast energy demand of RPP consumers. RPP prices will be based on that forecast per unit cost.

Computation of the RPP Supply Cost

Broadly speaking, the steps involved in forecasting the RPP supply cost are:

1. Forecast wholesale electricity market prices;

2. Forecast the load shape for RPP consumers;

3. Forecast the quantities in Equation 1; and

4. Forecast RPP Supply Cost = Total of Equation 1.

The discussion of data and computation for the forecast of the RPP supply cost will describe each term or group of terms in Equation 1, the data used for forecasting them, and the computational methodology to produce each component of the RPP supply cost.

Forecast Cost of Supply Under Market Rules

This section covers the first term of Equation 1:

$C_{RPP} = \boldsymbol{M} + \alpha\ [(A - B) + (C - D) + (E - F) + G] + H.$

The forecast cost of supply to RPP consumers under the Market Rules depends on two forecasts:

- The forecast of hourly Ontario market price (the hourly Ontario Energy price, or HOEP) at each hour of the year and

- The forecast of demand from the RPP consumers at each hour of the year.

The forecast of HOEP is taken directly from the Ontario Market Price Forecast, which also gives all of the assumptions producing that forecast. Table 2 below shows the average seasonal peak and off-peak prices from the Ontario Market Price Forecast used in calculating M in Equation 1. The prices provided in Table 2 are simple averages over all of the hours in the specified period. For example, the annual average for 2005 is the simple average over all hours in 2005. The prices in Table 2 are not load-weighted.

Table 2: Ontario Electricity Market Price Forecast

Ontario Electricity Market Price Forecast Average HOEP ($/MWh)						
Year	Quarter	On-Peak	Off-Peak	Average	Average for Initial RPP Period	Annual Average
2005	1	$77.78	$31.55	$53.56		$54.57
	2	$78.54	$30.76	$53.51	$55.38	
	3	$84.49	$35.21	$58.68		
	4	$75.89	$31.27	$52.52		
2006	1	$83.84	$32.24	$56.82		$53.38
	2	$73.94	$29.76	$50.80		
	3	$78.11	$34.57	$55.30		
	4	$71.98	$31.15	$50.59		

Note: On-Peak hours include the hours ending at 8 a.m. through 11 p.m. on working weekdays and Off-Peak hours include all other hours.

The forecast of the hourly electricity demand from RPP consumers comes from forecasts of the fraction of their total load consumed in each hour (their load shape) and the fraction that they represent of the total system-wide load for all consumers in Ontario.

No precise load shape is available that is specific to only RPP consumers. The approximation widely used is called Net System Load Shape, or NSLS. Each distributor's NSLS is its total load shape (which is known because the distributor has and is billed on an interval meter) minus the load of consumers with interval meters whose hourly usage is recorded. At present, almost all the consumers with interval meters are large commercial or industrial consumers who are not eligible for the RPP. The NSLS is widely used as an approximation of the load shape for smaller consumers, and for purposes of the RPP has been used as an approximation of the load shape of RPP consumers.

Figure 2 presents a chart of the forecast average hourly weekday NSLS and HOEP for January. This chart clearly demonstrates that NSLS consumption is higher during those times of day when prices are forecast to be higher.

Figure 2: Average Hourly NSLS Consumption and Forecast HOEP for January

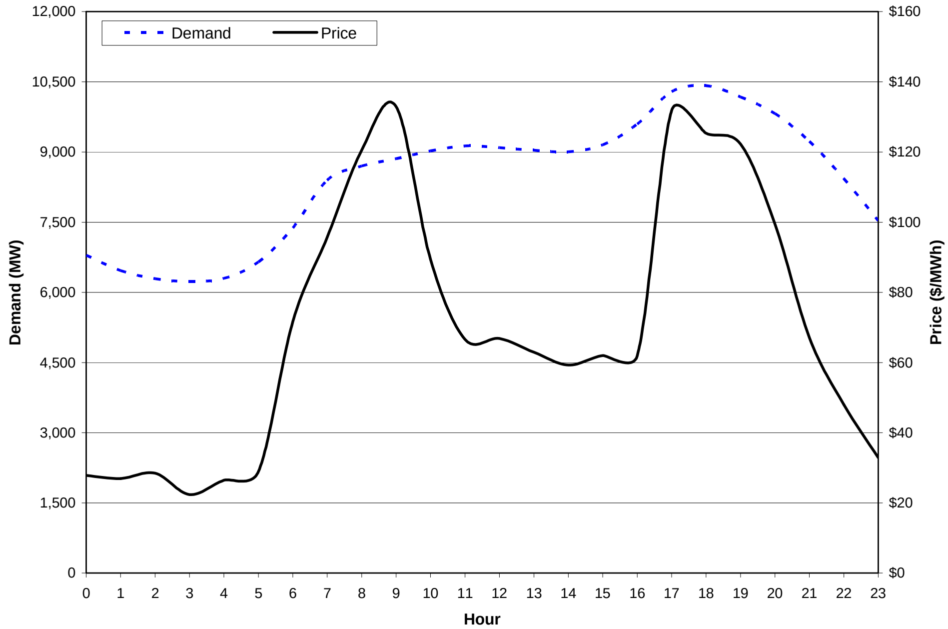
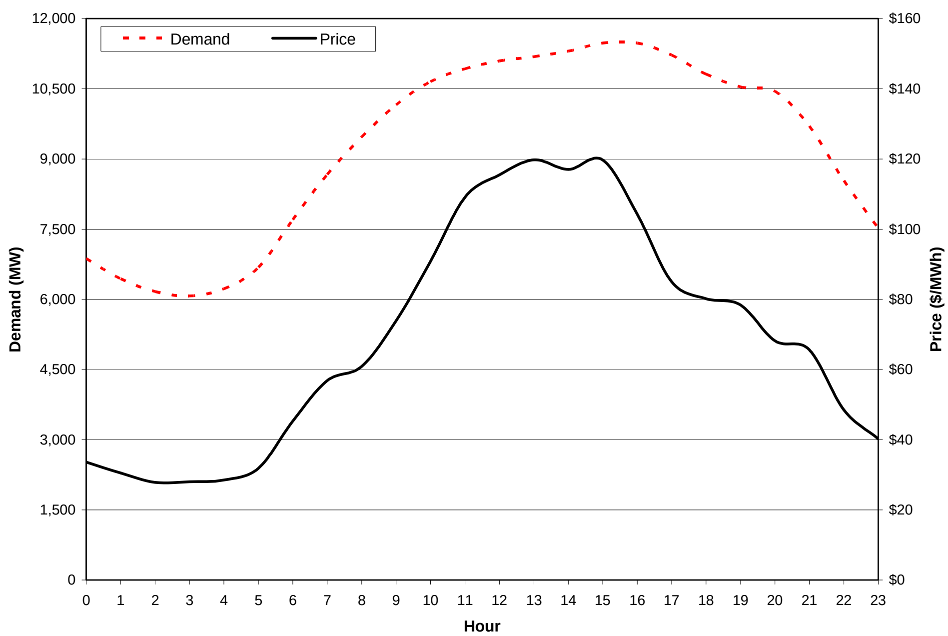


Figure 3 presents the same information for July. Again, this chart clearly demonstrates that NSLS consumption is higher during times when prices are forecast to be higher.

Figure 3: Average Hourly NSLS Consumption and Forecast HOEP for July



A similar pattern is observed in the monthly NSLS consumption pattern. NSLS consumption is higher during those months when prices are forecast to be higher.

The forecast of the market-based RPP supply cost is therefore the demand of these consumers times the HOEP at the time of consumption. As shown in Table 2 on page 5, the forecast simple average HOEP for the period April 1, 2005 to March 31, 2006, is \$55.38 per MWh. Given the above, an adjustment based on the NSLS results in a load-weighted average price for RPP consumers of \$59.75 per MWh.

The amount of electricity supplied under the RPP depends on which consumers are eligible to receive the RPP. Under the RPP Regulation, the current eligibility criteria are to be maintained through March 31, 2008. Based on these criteria, eligible consumers are all residential and small commercial consumers and designated consumers in the municipalities, universities, schools and hospitals (MUSH) sector as well as farms. Approximately 48 per cent, or just under half, of the total electricity consumption in the province is priced under the current regulated rate. This forecast maintains that ratio; consumption by RPP consumers is assumed to be 48 per cent of the total electricity consumption in Ontario.

The value of α is therefore 0.48.

Cost Adjustment Term for Prescribed Generators

This section covers the second term of Equation 1:

$$C_{RPP} = M + \alpha\,[\boldsymbol{(A - B)} + (C - D) + (E - F) + G] + H$$

The prescribed generators are comprised of the nuclear and baseload hydro-electric facilities of Ontario Power Generation (OPG).[5] The forecast of the dollar amount that the prescribed generators would receive under the Market Rules (quantity B in Equation 1) was calculated as their hourly generation multiplied by the Ontario market prices during those hours. Forecasts of both of these variables were taken from the production cost model used to develop the Ontario Market Price Forecast. For details of this forecast, see the Ontario Market Price Forecast.

The amount paid to the prescribed generators (quantity A in Equation 1) is determined by Government regulation. The price for the prescribed hydroelectric assets is \$33 per MWh for up to 1900 MWh produced in any hour, while that for the prescribed nuclear assets is \$49.50 per MWh.[6] Quantity A was therefore forecasted by multiplying these fixed prices per MWh for the prescribed generators times the total of their forecast output per month in MWh that is subject to regulated prices.

Cost Adjustment Term for NUGs

This section describes the calculation of the third term of Equation 1:

$$C_{RPP} = M + \alpha\,[(A - B) + \boldsymbol{(C - D)} + (E - F) + G] + H$$

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5 *Payments under Section 78.1 of the Act Regulation*, O. Reg. 53/05.

6 *Ibid.*

The amount that the NUGs would receive under the Market Rules, quantity D in Equation 1, is their hourly production times the hourly energy price. These quantities are available from the production cost model as an aggregate for the NUGs as a whole.

The amount that the NUGs receive under their contracts with Ontario Electricity Financial Corporation (OEFC – the agency responsible for administering the NUG contracts), quantity C in Equation 1, is not publicly available information, although it is known that most of the contracts provide for on-peak and off-peak prices. The Board has obtained from the OEFC a forecast of average on-peak and off-peak prices for these generators and average output on a monthly basis. These forecasts were used to compute the total payments to the NUGs under their contracts, or quantity C in Equation 1.

Cost Adjustment Term for Renewable Generation Under Output-Based Contracts with the OPA

This section describes the calculation of the fourth term of Equation 1:

$$C_{RPP} = M + \alpha\ [(A - B) + (C - D) + \boldsymbol{(E - F)} + G] + H$$

Quantities E and F in the above formula refer to generators paid by the OPA under contracts related to output. Generators in this category are renewable generators contracted under the recent renewables Request for Proposals (RFP).

The size, generation type, and location of the successful renewables projects have been announced by the Ministry of Energy. The production cost model produced forecasts of their hourly output, using the specification of the generators as they appear in the Ontario Market Price Forecast. Quantity F in Equation 1 is therefore the forecast hourly output of the renewable generation multiplied by the forecast HOEP at the time that the output is generated.

Quantity E in Equation 1 is simply the forecast quantity of electricity generated by these renewable generators times the fixed price they are paid under their contract with the OPA. Based on Navigant Consulting's analysis of the cost structure of similar generators and their likely required rates of return, the forecast contract price is approximately $80 per MWh.

A small amount of this renewable generation is forecast to come into service in the second half of this RPP term.

Cost Adjustment Term for Other Contracts with the OPA

This section describes the calculation of the fifth term of Equation 1:

$$C_{RPP} = M + \alpha\ [(A - B) + (C - D) + (E - F) + \boldsymbol{G}] + H$$

The costs for two kinds of resources under contract to the OPA are included in quantity G: conventional generation (e.g., natural gas) whose payment relates to the generator's capacity costs, and demand side management or demand response contracts.

The contribution of conventional generation under contract to the OPA to quantity G would relate to the Clean Energy Supply (2500 MW) RFP. The present forecast has no generation of this type in service before the end of the forecast period.

The cost to the OPA of any demand response (DR) or demand side management (DSM) contracts would be captured in term G of Equation 1. The present forecast has no contracts of this type in effect before the end of the forecast period.

The overall impact of the central term in Equation 1 – $\alpha\ [(A - B) + (C - D) + (E - F) + G]$ – is forecast to reduce the RPP unit cost by $2.22 per MWh. This essentially represents the forecast of the average Global Adjustment that would accrue to RPP consumers over the period from April 1, 2005 to March 31, 2006.

Cost for OPA Variance Account

This section describes the calculation of the sixth term of Equation 1:

$$C_{RPP} = M + \alpha\ [(A - B) + (C - D) + (E - F) + G] + \boldsymbol{H}$$

The OPA's direct costs to carry the RPP-related variance account will consist primarily of the interest it pays to carry consumer debit variances. This cost will be offset by any interest income the OPA receives when carrying consumer credit balances.

The forecast variance is positive and negative at different times, but averages to zero over the year. Therefore, no cost was added to the forecast RPP supply cost to account for the OPA carrying costs.

Setting the Price Component to Recover the RPP Supply Cost

The first step in the computation of the RPP price is the computation described above of the forecast RPP supply cost. The next step is to calculate the average RPP price for the year, RPA.

Note that all of the supply costs given in this chapter are based on forecasts; actual prices and actual demand cannot be predicted with absolute certainty. Calculating the total RPP supply cost also needs to take into account the fact that there is a slightly greater likelihood of negative or unfavourable variances than favourable variances. For example, since nuclear generation plants tend to operate at about an 80 per cent capacity factor, these facilities are more likely to "under-generate" (due to unscheduled outages) than to "over-generate". Similarly, during unexpectedly cold or hot weather, prices tend to be higher than expected as does RPP consumers' demand for electricity. The net result is that the RPP would be "expected" to end the year with a small unfavourable variance in the absence of an "adjustment" to reflect the greater likelihood of unfavourable variances. Inclusive of the mitigating impact of the rebate from OPG's non-prescribed assets discussed in the following paragraph, this adjustment was determined to be $0.20 per MWh (or about 0.02 cents per kWh) and should be collected from RPP consumers as part of the RPP prices to ensure that the expected variance at the end of the RPP year is zero.

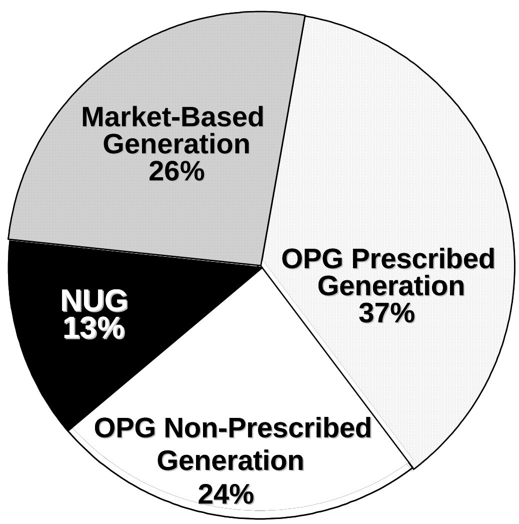
One additional step is required for this initial RPP year based on the RPP Regulation. On February 23, the Ontario Government announced a partial revenue cap for the non-prescribed assets (i.e., non-baseload hydroelectric and coal facilities) owned by OPG. The result of this revenue cap will be a rebate to consumers. The rebate will only apply to this RPP period and one month of the subsequent RPP period.

With this rebate included in the calculation, as required by the RPP Regulation, there is a further $4.55 per MWh reduction in the average RPP supply cost.

Total RPP Supply Cost

With these additional factors taken into consideration, the total RPP supply cost is estimated to be approximately $4 billion. Figure 4 breaks this supply cost into the four major cost streams. "Market-based generation" includes a small amount of output from OPG that is not subject to either the regulated price or the revenue cap based on the provisions of the regulations governing these mechanisms.

Figure 4: Components of Total RPP Supply Cost



The following table itemizes the various steps to arrive at the average RPP supply cost of $53.18 per MWh. This average supply cost corresponds to an average RPP price, which is referred to as RPA, of 5.318 cents per kWh.

Table 3: Average RPP Supply Cost Summary

RPP Supply Cost Summary		
for the period from April 1, 2005 through March 31, 2006		
Forecast Simple Average Hourly Ontario Electricity Price (HOEP) ($/MWh)	$55.38	
Load-Weighted Price for RPP Consumers ($/MWh)		$59.75
Reduction due to Global Adjustment ($/MWh)		-$2.22
Adjustment to Address Bias Towards Unfavourable Variance ($/MWh)		$0.20
Value of Rebate for Revenue Cap on OPG Non-Prescribed Generation ($/MWh)		-$4.55
Average Supply Cost for RPP Consumers ($/MWh)		***$53.18***

In this initial RPP price setting, there is no accumulated unexpected variance to be trued up.

3. CALCULATING THE RPP PRICE

The previous chapter calculated a forecast of the *total* RPP supply cost. Given the forecast of total RPP demand, it also produced a computation of the *average* RPP supply cost and the average RPP supply price, RPA. This chapter will detail the determination of the tiered prices for consumers with conventional meters, $RPCM_{T1}$ and $RPCM_{T2}$, and the determination of the prices for consumers with eligible time-of-use meters who are being charged the time-of-use prices, $RPEM_{ON}$, $RPEM_{MID}$, and $RPEM_{OFF}$.

Setting the Tier Prices for RPP Consumers with Conventional Meters

The final step in setting the price for RPP consumers with conventional meters is determining the tier prices. For such consumers, there is a tiered pricing structure with two prices — $RPCM_{T1}$ (the price for consumption at or below the tier threshold) and $RPCM_{T2}$ (the price for consumption above the tier threshold). The tier threshold is an amount of consumption per month.

The Standard Service Supply Code (SSS Code) requires that the tier threshold remain at 750 kWh per month for all such consumers until October 31, 2005. In accordance with the Manual, the tier threshold will then change, rising to 1000 kWh per month for the remainder of the first year of the RPP for only residential consumers.[7] Non-residential consumers will continue to have a tier threshold of 750 kWh per month until such time as it may be changed by the Board. The tier prices have been computed using these tier thresholds.

The tier prices must be calculated so that the expected average price, calculated on a "tier load-weighted" basis, equals the average RPP price, RPA.

Based on information obtained from the Independent Electricity System Operator (IESO), under the current tier structure, approximately half of the total electricity sales to RPP eligible consumers are at the lower tier and half at the higher tier. For the months with the existing tier threshold (April through October), the tier price calculation is based on the assumption that the RPP load is evenly split between the tiers.

For the months after the tier threshold for residential consumers is raised, the Board used distributor data that shows the fraction of consumption that occurs above and below the new threshold to adjust the ratio of electricity taken at $RPCM_{T1}$ and $RPCM_{T2}$ by residential consumers. This adjusted ratio was used for the five months that the tier threshold will be

[7] This tier threshold will be in place for six months from November 1, 2005 until April 30, 2006. In accordance with the Manual, the tier threshold for residential RPP consumers will decrease to 600 kWh per month from May 1, 2006 to October 31, 2006. This decrease occurs after the end of the period to which this Report applies.

raised to 1,000 kWh per month. The prices were set to result in a load-weighted price of approximately 5.3 cents per kWh, or the RPA.

The resulting tier prices are:

$RPCM_{T1}$ = **5.0 cents** per kWh, and

$RPCM_{T2}$ = **5.8 cents** per kWh.

Setting the TOU Prices for RPP Consumers with Eligible Time-of-Use Meters

The average RPP price for consumers with eligible time-of-use meters is the same as that for conventional meters, RPA.[8] For those consumers whose distributors have chosen to make time-of-use (TOU) prices available, there are three separate prices that will apply. The times when these prices will apply will vary by time of day and season, as set out in the Manual. There are three price levels: on-peak ($RPEM_{ON}$), mid-peak ($RPEM_{MID}$), and off-peak ($RPEM_{OFF}$). The load-weighted average price must be equal to RPA, as was the case for conventional meter RPP prices.

The price forecast in the Ontario Market Price Forecast provides data on the forecast price in each of the pricing periods. As described in the Manual, the first step is to set the off-peak price, or $RPEM_{OFF}$. This price reflects the forecast market price during that period. The mid-peak price, $RPEM_{MID}$, was similarly set as the forecast market price during that period. Once these two prices are set, and given the forecast levels of consumption during each of the three periods, the on-peak price, $RPEM_{ON}$, is determined by the need to make the load-weighted average price equal to RPA.[9]

Again, one additional step is required for this initial RPP year to account for the revenue cap imposed on OPG non-prescribed (non-baseload) assets. Without discrimination between on-peak, mid-peak, and off-peak, the tier prices are each individually adjusted by an equal amount to include the expected rebate.

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[8] In future years, when experience with time-of-use meters produces a more accurate load shape for consumers with eligible time-of-use meters, the average prices could differ, depending on how significantly the actual load shape of consumers with time-of-use meters differs from the NSLS of consumers with conventional meters.

[9] This calculation is made to set the load-weighted average equal to the RPA prior to the inclusion of the OPG non-prescribed asset revenue cap rebate.

The resulting price levels are:

$RPEM_{OFF}$ = **2.9 cents** per kWh

$RPEM_{MID}$ = **6.4 cents** per kWh, and

$RPEM_{ON}$ = **9.3 cents** per kWh.

The Manual defines the time periods for time-of-use (TOU) price application as follows:

- *Off-peak* period (priced at $RPEM_{OFF}$):
    - *Winter and summer weekdays*: 10 p.m. to midnight and midnight to 7 a.m.
    - *Winter and summer weekends and holidays*:[10] 24 hours (all day)
- *Mid-peak* period (priced at $RPEM_{MID}$)
    - *Winter weekdays (November 1 to April 30)*: 11 a.m. to 5 p.m. and 8 p.m. to 10 p.m.
    - *Summer weekdays (May 1 to October 31)*: 7 a.m. to 11 a.m. and 5 p.m. to 10 p.m.
- *On-peak* period (priced at $RPEM_{ON}$)
    - *Winter weekdays*: 7 a.m. to 11 a.m. and 5 p.m. to 8 p.m.
    - *Summer weekdays*: 11 a.m. to 5 p.m.

The above times are given in local time (i.e., the times given reflect daylight savings time in the summer).

[10] The days that constitute a "holiday" for this purpose include all days identified as such in the *Interpretation Act*, except Easter Monday and Remembrance Day. These include New Year's Day, Good Friday, Christmas Day, Victoria Day, Canada Day, Labour Day, Thanksgiving Day, and any day appointed by proclamation of the Governor General or the Lieutenant Governor as a public holiday. When any holiday falls on a Sunday, the day next following is in lieu thereof a holiday.

4. The Transition to RPP Prices

This chapter briefly describes the key factors that lead to differences between the RPP prices that will go into effect on April 1, 2005 and the prices charged to consumers during the past year.

The average RPP supply cost for the year beginning April 1, 2005 is expected to be 5.3 cents per kWh. This is higher than the average price that low-volume and designated consumers have paid since April 1, 2004 under the 4.7 cent/5.5 cent pricing plan. Overall, those consumers have paid on average about 5.1 cents per kWh before considering the impact of $300 million in rebates announced by the Minister of Energy on February 23, 2005.

Several factors account for the increase in price from last year. The most significant factors are:

- Until recently, the above-market costs of supply contracts signed by the former Ontario Hydro with non-utility generators (NUGs) were absorbed by Ontario Electricity Financial Corporation; they were not charged to electricity consumers. Now, in accordance with the Act and the RPP Regulation, the full costs of the NUG contracts are required to be paid by all electricity consumers, including RPP consumers.

- Recently announced changes in the pricing arrangements for the majority of OPG's electricity production also lead to somewhat higher prices. As discussed elsewhere in the report, effective April 1, 2005 OPG will receive fixed prices for output from its nuclear plants and baseload hydroelectric facilities. In addition, much of OPG's output from its other generating plants will be subject to a revenue cap of $47 per MWh until April 30, 2006. These new arrangements replace the Market Power Mitigation Agreement rebates that effectively capped the revenue on much of OPG's production in past periods at $38 per MWh. Had the pricing arrangements for OPG's production remained the same as in the past, the 2005/2006 RPP price would be lower.

- The hourly prices in the IESO-administered energy market are forecast to be higher than actual hourly prices last year. Several factors in the forecast put upward pressure on the RPP price, notably the cost of fuel, the availability of generation, and the impact of weather on demand.

  Both coal and natural gas prices are forecast to be higher in 2005 than they were in 2004. The higher price raises the expected cost of generation from fossil sources in Ontario.

  Market prices in the period April 2004 to January 2005 benefited from favorable weather conditions. Relative to normal weather, the summer of 2004 was wetter and cooler. Wetter weather makes more cheap electricity available from hydroelectric sources, and cooler weather reduces demand. Also, the winter heating season (except for January) was milder than normal, reducing demand. The forecast for 2005 assumes normal weather, reducing hydroelectric energy availability and increasing forecast demand. Both of these increase the forecast RPP supply cost and therefore the RPP price.

- Finally, the retirement of Lakeview Generating Station in May 2005 results in higher forecast market prices in some hours, again increasing the forecast RPP supply cost.